



## CERTIFICATE OF ANALYSIS

|                          |                           |
|--------------------------|---------------------------|
| Product Name             | Ethyl Acetate             |
| Grade                    | General Use HPLC-UV Grade |
| Catalog #                | 33000HPLC                 |
| Item #                   | 101125                    |
| Batch #                  | 220426-B023098            |
| Date of Manufacture:     | 04/18/2022                |
| Recommended Retest Date: | 04/17/2027                |
| Customer PO #            | P20963 / 2                |
| Packaging Type           | Case Poly Fluor 4x1 Gal   |

| TEST                                 | MONO-GRAPH | SPECIFICATION   | RESULT        | UNITS |
|--------------------------------------|------------|---|---------------|-------|
| Packaging Site                       | Internal   | Greenfield Global USA Inc. 58 Vale Road, Brookfield, CT 06804 or 1101 Isaac Shelby Drive, Shelbyville, KY 40065 | Brookfield CT | N/A   |
| Assay (corrected for water)          | ACS        | 99.5%, min  | 99.99         | %     |
| Color (APHA)                         | ACS        | 10 max.   | 1             | N/A   |
| Residue After Evaporation            | ACS        | 0.003% max.   | 0.000         | %     |
| Substances Darkened by Sulfuric Acid | ACS        | Passes Test   | Pass          | N/A   |
| Titration Acid                       | ACS        | 0.0009 meq/g max  | 0.0004        | meq/g |
| Water                                | ACS        | 0.2% max.   | 0.01          | %     |
| UV Absorbance @ 255nm                | HPLC       | 1.00 max.   | 0.50          | N/A   |
| UV Absorbance @ 257nm                | HPLC       | 0.50 max.   | 0.25          | N/A   |
| UV Absorbance @ 263nm                | HPLC       | 0.10 max.   | 0.03          | N/A   |
| UV Absorbance @ 275nm                | HPLC       | 0.05 max.   | 0.01          | N/A   |
| UV Absorbance @ 330-400nm            | HPLC       | 0.01 max.   | 0.00          | N/A   |
| Acidity                              | NF         | NMT 0.10 mL of 0.10N NaOH is required   | 0.05          | ml    |
| Assay                                | NF         | 98.0-102.0%   | 100.00        | %     |



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|---|------------|---|---------------|-------|
| Identification A                                  | NF         | Infrared Spectroscopy                   | Pass          | N/A   |
| Limit of nonvolatile residue                      | NF         | NMT 0.02%                               | 0.00          | %     |
| Chromatographic Purity - Acetaldehyde             | NF         | NMT 0.1%                                | None Detected | N/A   |
| Chromatographic Purity - 1-Ethoxy-2-methylpropane | NF         | NMT 0.1%                                | None Detected | N/A   |
| Chromatographic Purity - Methyl compounds         | NF         | NMT 0.1%                                | None Detected | N/A   |
| Chromatographic Purity - Other impurities         | NF         | NMT 0.3%                                | None Detected | N/A   |
| Readily Carbonizable Substances                   | NF         | No dark zone develops within 15 minutes | Pass          | N/A   |
| Specific Gravity @ 25oC                           | NF         | 0.894-0.898                             | 0.897         | N/A   |

### Certification and Compliance Statements

This lot of Ethyl Acetate complies with all of the current requirements listed in the United States Pharmacopeia, National Formulary, American Chemical Society monographs.

This product is manufactured for Routine HPLC Analysis and meets the requirements for General Use HPLC Grade, ACS Specifications. This product is not intended for GC or critical HPLC analysis. See Glass Purified, Glass Distilled Grade for those applications

No chemicals whatsoever are used as solvents at any point in the manufacture, processing or packaging of Ethyl Acetate. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in Ethyl Acetate. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>

This product is for further commercial manufacturing, laboratory or research use, and may be used as a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.



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**This document was electronically signed by Gabriella Scoca on 5/2/2022 4:28:15 PM to indicate Quality Assurance Approval and to release this batch.**